

Grade R



NS.LO1 (GET)

SCIENTIFIC INVESTIGATIONS

The learner will be able to act confidently on curiosity about natural phenomena, and to investigate relationships and solve problems in scientific, technological and environmental contexts.



Assessment Standards

We know this when the learner:

R.1.1

- **Plans: Contributes towards planning an investigative activity.**

Achievement is evident when the learner, for example,

- asks and answers questions about the investigation, using 'show and tell' or stories to say what action is planned.

R.1.2

- **Does: Participates in planned activity.**

Achievement is evident when the learner, for example,

- follows simple instructions with assistance;
- explains what is being done or played (e.g. games according to the rules).

R.1.3

- **Reviews: Thinks and talks about what has been done.**

Achievement is evident when the learner, for example,

- uses simple words, pictures or other items with assistance to explain what has been done.

Grade 1



NS.LO1 (GET)

SCIENTIFIC INVESTIGATIONS

The learner will be able to act confidently on curiosity about natural phenomena, and to investigate relationships and solve problems in scientific, technological and environmental contexts.



Assessment Standards

We know this when the learner:

1.1.1

- **Plans: Plans an investigation independently.**

Achievement is evident when the learner, for example,

- shows how self plans to find out about things which are found to be curious;
- uses pictures, drawings or other markings of choice to explain what is going to be done.

1.1.2

- **Does: Independently participates in planned activity.**

Achievement is evident when the learner, for example,

- carries out instructions independently and shows or tells what is being done.

1.1.3

- **Reviews: Thinks about what has been done and says what has been found out.**

Achievement is evident when the learner, for example,

- individually or with assistance, 'shows and tells' what was done using own ideas and objects to explain what aroused curiosity.

Grade 2



Assessment Standards

We know this when the learner:

2.1.1

- **Plans: Plans an investigation as part of a group.**

Achievement is evident when the learner, for example,

- discusses and plans with others;
- negotiates joint understanding of who does what;
- decides on what materials or modes will be used to communicate the plan.

2.1.2

- **Does: Participates in planned activity independently or as part of a group.**

Achievement is evident when the learner, for example,

- plays a role in a group and carries out instructions independently;
- explains what is being done, and answers the question, 'What are you trying to find out?'

2.1.3

- **Reviews: Shows and explains what was intended and how it was done.**

Achievement is evident when the learner, for example,

- explains own contribution to the investigation;
- uses several different ways to communicate own ideas;
- is curious about what might happen if the situation was changed in some way.

Grade 3



Assessment Standards

We know this when the learner:

3.1.1

- **Plans: Uses materials selected by the group in order to communicate the group's plan.**

Achievement is evident when the learner, for example,

- lays out materials the group intends to use;
- tells who will use the materials and the purpose.

3.1.2

- **Does: Participates constructively in the activity with understanding of its purpose.**

Achievement is evident when the learner, for example,

- explains the purpose of the activity;
- answers the questions, 'Why are you doing this?' and 'How are you trying to find that out?' and 'Is your plan working?';
- agrees or disagrees with other opinions, giving reasons.

3.1.3

- **Reviews: Explains and reflects on what action was intended and whether it was possible to carry out the plan.**

Achievement is evident when the learner, for example,

- reviews how actions of members in the group contributed to the purpose;
- reviews what is needed to do better next time;
- uses a number of different ways of presenting information;
- reflects on what other topics might be investigated.

Grade 4



NS.LO1 (GET)

SCIENTIFIC INVESTIGATIONS

The learner will be able to act confidently on curiosity about natural phenomena, and to investigate relationships and solve problems in scientific, technological and environmental contexts.



Assessment Standards

We know this when the learner:

4.1.1

- **Plans investigations: Contributes ideas of familiar situations, needs or materials, and identifies interesting aspects which could lead to investigations.**

Achievement is evident when the learner, for example,

- suggests actions to try with the materials;
- talks about personal experiences, highlighting aspects which relate to science or technology;
- responds to suggestions like: 'Some people say ... What do you think?'

4.1.2

- **Conducts investigations and collects data: Explores the possibilities in available materials, finding out how they can be used.**

Achievement is evident when the learner, for example,

- notes and remarks on obvious changes or interesting details;
- tries own idea of how the materials might respond;
- perseveres or repeats the activity in different ways, experiencing the phenomenon in other ways.

Grade 5



Assessment Standards

We know this when the learner:

5.1.1

- **Plans investigations: Lists, with support, what is known about familiar situations and materials, and suggests questions for investigation.**

Achievement is evident when the learner, for example,

- contributes to a class list of interesting aspects of the situation;
- helps build a list of questions which self or classmates consider important;
- responds to teacher's suggestions of 'what would happen if...?'

5.1.2

- **Conducts investigations and collects data: Carries out instructions and procedures involving a small number of steps.**

Achievement is evident when the learner, for example,

- follows a simple worksheet to set up equipment and obtain observations;
- records observations by drawing and labelling;
- perseveres until the phenomenon happens or can be observed over a longer period of time (e.g. plants grow toward light from a mirror).

Grade 6



Assessment Standards

We know this when the learner:

6.1.1

- **Plans investigations: Helps to clarify focus questions for investigation and describes the kind of information which would be needed to answer the question.**

Achievement is evident when the learner, for example,

- expresses focus questions in own words;
- considers classmates' ideas about kinds of information which could be relevant;
- suggests ways that the information could be gathered;
- clarifies task for other learners (e.g. 'What we need to find out is...').

6.1.2

- **Conducts investigations and collects data: Conducts simple tests or surveys and records observations or responses.**

Achievement is evident when the learner, for example,

- interviews people about their preferences on a particular matter or product;
- records new notes and measurements if teacher gives format for recording (e.g. lists, tables with headings);
- contributes entries to the class logbook (e.g. about changes in a growing plant or a caterpillar).

Grade 4



Learning Outcome 1 Continued

SCIENTIFIC INVESTIGATIONS

The learner will be able to act confidently on curiosity about natural phenomena, and to investigate relationships and solve problems in scientific, technological and environmental contexts.



Assessment Standards

We know this when the learner:

4.1.3

- **Evaluates data and communicates findings: Talks about observations and suggests possible connections to other situations.**

Achievement is evident when the learner, for example,

- describes own perceptions of the event, relating to the purpose of the investigation;
- tells of related situations in which own ideas would be relevant.

Grade 5



Assessment Standards

We know this when the learner:

5.1.3

- **Evaluates data and communicates findings: Reports on the group's procedure and the results obtained.**

Achievement is evident when the learner, for example,

- offers observation data which have a connection to the focus question;
- describes before-and-after situations when they varied some factor in the situation.

Grade 6



Assessment Standards

We know this when the learner:

6.1.3

- **Evaluates data and communicates findings: Relates observations and responses to the focus question.**

Achievement is evident when the learner, for example,

- points to examples of data which confirm the finding;
- describes the data-collection methods and how data were recorded.

Grade 4



NS.LO2 (GET)

CONSTRUCTING SCIENCE KNOWLEDGE

The learner will know and be able to interpret and apply scientific, technological and environmental knowledge.



Assessment Standards

We know this when the learner:

4.2.1

- **Recalls meaningful information: At the minimum, uses own most fluent language to name and describe objects, materials and organisms.**

Achievement is evident when the learner, for example,

- gives the names of animals in a picture, using own most fluent language;
- names and describes materials used in making a kite, using own most fluent language;
- names or describes functional parts of structures (e.g. 'beam' or 'strut'), using own most fluent language.

4.2.2

- **Categorises information: Sorts objects and organisms by a visible property.**

Achievement is evident when the learner, for example,

- follows instructions to sort animals into groups of those with two legs, with four legs, and with more than four legs.

Grade 5



Assessment Standards

We know this when the learner:

5.2.1

- **Recalls meaningful information: At the minimum, uses own most fluent language to name and describe features and properties of objects, materials and organisms.**

Achievement is evident when the learner, for example,

- identifies external parts of animals (e.g. noses, ears, tails, fur, gills, fins, scales, feathers) in own most fluent language;
- appropriately describes observable features of objects in the environment, animals, plants or features in the sky, in own most fluent language;
- matches moving mechanical systems to the definition of their motions (e.g. oscillation, rotation, movement in straight lines).

5.2.2

- **Categorises information: Creates own categories of objects and organisms, and explains own rule for categorising.**

Achievement is evident when the learner, for example,

- explains the grouping of a set of organisms with sentences such as: 'All these animals can get into trees, and these ones can't.'

Grade 6



Assessment Standards

We know this when the learner:

5.2.1

- **Recalls meaningful information: At the minimum, describes the features which distinguish one category of thing from another.**

Achievement is evident when the learner, for example,

- explains the definitions that distinguish mammals (which suckle their young) and reptiles (which do not);
- describes and names different cloud formations and links them to coming weather;
- recalls the difference between planets and stars.

6.2.2

- **Categorises information: Categorises objects and organisms by two variables.**

Achievement is evident when the learner, for example,

- categorises animals as mammals or reptiles, and then as carnivorous and herbivorous mammals, or carnivorous and herbivorous reptiles;
- categorises leaves by the type of vein patterns, and then each class of leaf by the type of margin.

Grade 4



Learning Outcome 2 Continued



Assessment Standards

We know this when the learner:

CONSTRUCTING SCIENCE KNOWLEDGE

The learner will know and be able to interpret and apply scientific, technological and environmental knowledge.

(There are no further Assessment Standards for this Learning Outcome in Grade 4.)

Grade 5



Assessment Standards

We know this when the learner:

(There are no further Assessment Standards for this Learning Outcome in Grade 5.)

Grade 6



Assessment Standards

We know this when the learner:

6.2.3

- **Interprets information: At the minimum, interprets information by using alternative forms of the same information.**

Achievement is evident when the learner, for example,

- finds information in science texts by using glossaries, indexes and tables of contents;
- extracts information from bar graphs;
- puts in order pictures of the stages in the life cycle of fruit flies, when observing real fruit flies reproducing;
- identifies external parts of animals (e.g. noses, ears, tails, fur, gills, fins, scales, feathers), and tells as much as possible about their function in the animal's way of living.

Grade 4



NS.LO3 (GET)

SCIENCE, SOCIETY AND THE ENVIRONMENT

The learner will be able to demonstrate an understanding of the interrelationships between science and technology, society and the environment.



Assessment Standards

We know this when the learner:

4.3.1

- **Understands science and technology in the context of history and indigenous knowledge: Describes how local indigenous cultures have used scientific principles and technological products for specific purposes.**

Achievement is evident when the learner, for example,

- describes how own cultural group has, through history, found safe ways to collect and use water to drink;
- describes methods of sending messages over short and long distances.

4.3.2

- **Understands the impact of science and technology: Identifies features of technological devices around him or her, and tells about their purpose and usefulness.**

Achievement is evident when the learner, for example,

- suggests why having running water in a home might make people's lives easier;
- dismantles a tap or uses cross-section diagrams of a tap to explain why a closed tap may drip and waste water.

Grade 5



Assessment Standards

We know this when the learner:

5.3.1

- **Understands science and technology in the context of history and indigenous knowledge: Identifies ways in which products and technologies have been adapted from other times and cultures.**

Achievement is evident when the learner, for example,

- describes traditional shelters and relates some of their features to modern dwellings;
- listens and responds to stories about people who invented known devices (e.g. the telephone was invented by Alexander Graham Bell, who also taught deaf people to speak).

5.3.2

- **Understands the impact of science and technology: Identifies the positive and negative effects of scientific developments or technological products on the quality of people's lives and/or the environment.**

Achievement is evident when the learner, for example,

- expresses possible advantages and disadvantages of living in a modern city, and explains why some people might prefer to live in traditional dwellings in a rural area;
- compares results of an audit of water use in own home with results of other learners, noting differences in amounts used and for what purposes, as well as costs of getting the water.

Grade 6



Assessment Standards

We know this when the learner:

6.3.1

- **Understands science and technology in the context of history and indigenous knowledge: Describes similarities in problems and solutions in own and other societies in the present, the past and the possible future.**

Achievement is evident when the learner, for example,

- describes different ways that people in the past might have produced light at night;
- generates a list of basic human needs that are common to all societies, now and in the past.

6.3.2

- **Understands the impact of science and technology: Suggests ways to improve technological products or processes and to minimise negative effects on the environment.**

Achievement is evident when the learner, for example,

- describes how technology can be used to save energy by switching lights off automatically when not needed;
- uses personal observation or information from the local authority to flow-chart the water supply system from the taps (or water tank) back to the source, noting points of potential contamination.

Grade 4



Learning Outcome 3 Continued

SCIENCE, SOCIETY AND THE ENVIRONMENT

The learner will be able to demonstrate an understanding of the interrelationships between science and technology, society and the environment.



Assessment Standards

We know this when the learner:

4.3.3

- **Recognises bias in science and technology:
Identifies difficulties some people may have in
using technological devices.**

Achievement is evident when the learner, for example,

- identifies possible reasons why a disabled, older or younger person may find it difficult to open a tap.

Grade 5



Assessment Standards

We know this when the learner:

5.3.3

- **Recognises bias in science and technology:**
Describes the impact that lack of access to technological products and services has on people.

Achievement is evident when the learner, for example,

- explains how poor or unemployed people might end up homeless through changes in technology.

Grade 6



Assessment Standards

We know this when the learner:

6.3.3

- **Recognises bias in science and technology:**
Suggests how technological products and services can be made accessible to those presently excluded.

Achievement is evident when the learner, for example,

- suggests ways that light could be made available to remote rural areas.

Grade 7



NS.LO1 (GET)

SCIENTIFIC INVESTIGATIONS

The learner will be able to act confidently on curiosity about natural phenomena, and to investigate relationships and solve problems in scientific, technological and environmental contexts.



Assessment Standards

We know this when the learner:

7.1.1

- **Plans investigations: Plans simple tests and comparisons, and considers how to make them fair.**

Achievement is evident when the learner, for example,

- identifies a testable question among a set of possible questions;
- contributes in ways that aid the investigation (e.g. asks: 'How could we measure X?' or 'Are we treating these two things in the same way?');
- gives reasons why a particular test is or is not fair.

7.1.2

- **Conducts investigations and collects data: Organises and uses equipment or sources to gather and record information.**

Achievement is evident when the learner, for example,

- systematically tests two or more items in order to compare them on the same common property;
- modifies procedure to obtain better observations or readings;
- uses indexes and glossaries to find useful data in books and catalogues.

Grade 8



Assessment Standards

We know this when the learner:

8.1.1

- **Plans investigations: Identifies factors to be considered in investigations and plans ways to collect data on them, across a range of values.**

Achievement is evident when the learner, for example,

- modifies a vague question to make it testable;
- discusses suitable headings of instruments (e.g. tables, interview schedules) which will be needed to record data while working;
- identifies factors which may be important to the investigation.

8.1.2

- **Conducts investigations and collects data: Collects and records information as accurately as equipment permits and investigation purposes require.**

Achievement is evident when the learner, for example,

- reviews data-collecting procedures during the investigation (e.g. varies the independent variable systematically while collecting data on the dependent variable);
- sees the need to use measuring instruments, and does so with reasonable accuracy.

Grade 9



Assessment Standards

We know this when the learner:

9.1.1

- **Plans investigations: Plans a procedure to test predictions or hypotheses, with control of an interfering variable.**

Achievement is evident when the learner, for example,

- expresses a question in a testable form (e.g. 'if we do X, then Y will happen' or 'X and Y are always related');
- identifies an interfering variable and explains how it will be taken into account;
- suggests sources of information which would provide suitable data;
- pilot-tests an interview schedule before doing a survey.

9.1.2

- **Conducts investigations and collects data: Contributes to systematic data collection, with regard to accuracy, reliability and the need to control a variable.**

Achievement is evident when the learner, for example,

- takes sufficient measurements or responses to gauge reliability;
- effectively controls at least one variable during data collection;
- compares information from other sources when different views are likely or important;
- discusses the meaning of the data being collected, comparing them with the focus question.

Grade 7



Learning Outcome 1 Continued

SCIENTIFIC INVESTIGATIONS

The learner will be able to act confidently on curiosity about natural phenomena, and to investigate relationships and solve problems in scientific, technological and environmental contexts.



Assessment Standards

We know this when the learner:

7.1.3

- **Evaluates data and communicates findings: Generalises in terms of a relevant aspect and describes how the data supports the generalisation.**

Achievement is evident when the learner, for example,

- offers a strong example of evidence that supports the finding;
- considers what further work would be needed to decide whether the findings apply to other, similar situations.

Grade 8



Assessment Standards

We know this when the learner:

8.1.3

- **Evaluates data and communicates findings:**
Considers the extent to which the conclusions reached are reasonable answers to the focus question of the investigation.

Achievement is evident when the learner, for example,

- lists items of evidence supporting the finding;
- describes how the plan and data collection procedure was checked against the focus question;
- considers factors in the group which might have affected their data.

Grade 9



Assessment Standards

We know this when the learner:

9.1.3

- **Evaluates data and communicates findings:**
Seeks patterns and trends in the data collected and generalises in terms of simple principles.

Achievement is evident when the learner, for example,

- shows how items of evidence support each other;
- presents data in suitable forms in order to show trends and patterns;
- considers possible bias in sources of information that are used;
- suggests further investigations which would help to confirm the generalisation.

Grade 7



NS.LO2 (GET)

CONSTRUCTING SCIENCE KNOWLEDGE

The learner will know and be able to interpret and apply scientific, technological and environmental knowledge.



Assessment Standards

We know this when the learner:

7.2.1

- **Recalls meaningful information: At the minimum, recalls definitions and complex facts.**

Achievement is evident when the learner, for example,

- distinguishes vertebrates from invertebrates;
- lists the planets in our solar system, in their correct order and relations of size;
- tells how electric and magnetic forces affect materials differently;
- explains what is meant by a variable in an investigation.

7.2.2

- **Categorises information: Compares features of different categories of objects, organisms and events.**

Achievement is evident when the learner, for example,

- uses a simple classification system to group root types of familiar plants;
- compiles a list of uses of household acids, based on common properties, and compares them with a list of household bases;
- takes the role of a zookeeper who needs to build animal enclosures in suitable groups, based on the particular needs of the animals.

Grade 8



Assessment Standards

We know this when the learner:

8.2.1

- **Recalls meaningful information: At the minimum, recalls procedures, processes and complex facts.**

Achievement is evident when the learner, for example,

- describes some symbiotic relationships among living things;
- describes the steps in separating alcohol and water;
- makes and uses a model of a flower to explain how the parts (e.g. petals, sepals, anthers, stigma) enable the functions of pollination and fertilisation.

8.2.2

- **Categorises information: Applies classification systems to familiar and unfamiliar objects, events, organisms and materials.**

Achievement is evident when the learner, for example,

- uses a simple classification system to group root types of plants, including unfamiliar species, and link them to dicotyledon vs. monocotyledon classification;
- recalls and correctly applies classifications (e.g. mammals vs. birds, fish, reptiles and amphibians; metals vs. non-metals; insulators vs. conductors; planets vs. stars).

Grade 9



Assessment Standards

We know this when the learner:

9.2.1

- **Recalls meaningful information: At the minimum, recalls principles, processes and models.**

Achievement is evident when the learner, for example,

- describes how heart, lungs and stomach work together to provide a human with energy;
- describes separation of alcohol and water in terms of the relevant principle;
- describes the key statements of the particle kinetic model of matter;
- describes the difference between a dependent and an independent variable.

9.2.2

- **Categorises information: Applies multiple classifications to familiar and unfamiliar objects, events, organisms and materials.**

Achievement is evident when the learner, for example,

- uses alternative classifications for the same thing (e.g. uses information to construct three classifications of copper):
 - ▶ copper is a solid (rather than a liquid or gas),
 - ▶ copper is also a metal (rather than a non-metal),
 - ▶ copper is also an element (rather than a compound);
- considers the implications of categorising humans by physical characteristics.

Grade 7



Learning Outcome 2 Continued

CONSTRUCTING SCIENCE KNOWLEDGE

The learner will know and be able to interpret and apply scientific, technological and environmental knowledge.



Assessment Standards

We know this when the learner:

7.2.3

- **Interprets information:** Interprets information by identifying key ideas in text, finding patterns in recorded data, and making inferences from information in various forms (e.g. pictures, diagrams, text).

Achievement is evident when the learner, for example,

- creates headings for paragraphs in some passages from a textbook;
- reconstructs jumbled or partly-deleted text by reference to photos or diagrams;
- identifies properties of materials from reading a story about the Wright brothers choosing materials to make the first aeroplane;
- generates own sentences about relationships of the type 'when X happens, then Y also happens'.

Grade 8



Assessment Standards

We know this when the learner:

8.2.3

- **Interprets information: Interprets information by translating tabulated data into graphs, by reading data off graphs, and by making predictions from patterns.**

Achievement is evident when the learner, for example,

- annotates diagrams by interpreting text passages about the topic;
- draws graphs of population growth over time, from data provided in a table;
- studies photographs of fossil animals and makes inferences about their ways of feeding and moving;
- generates own sentences about relationships (e.g. of the type 'if you change X, then Y changes also').

Grade 9



Assessment Standards

We know this when the learner:

9.2.3

- **Interprets information: Interprets information by translating line graphs into text descriptions and vice versa, by extrapolating from patterns in tables and graphs to predict how one variable will change, by identifying relationships between variables from tables and graphs of data, and by hypothesising possible relationships between variables.**

Achievement is evident when the learner, for example,

- creates word-webs and mind maps by previewing chapters of text;
- estimates the doubling time of a population from graph data of an increasing population;
- reads off, from a line graph, the range of temperatures at which yeast is most active;
- relates melting and freezing, evaporation and condensation to a particle kinetic model of changes of state;
- generates own sentences such as 'we think that X is the cause of Y, because Y happens only if X happens'.

Grade 7



Learning Outcome 2 Continued

CONSTRUCTING SCIENCE KNOWLEDGE

The learner will know and be able to interpret and apply scientific, technological and environmental knowledge.



Assessment Standards

We know this when the learner:

7.2.4

- **Applies knowledge: Applies conceptual knowledge by linking a taught concept to a variation of a familiar situation.**

Achievement is evident when the learner, for example,

- identifies which processes of energy transfer were involved as a hot car engine cooled down;
- applies the concept of reproduction to debate the question of whether rivers and fires are living or non-living things;
- evaluates the 'fair test' aspect of simple investigations carried out by other people.

Grade 8



Assessment Standards

We know this when the learner:

8.2.4

- **Applies knowledge: Applies conceptual knowledge to somewhat unfamiliar situations by referring to appropriate concepts and processes.**

Achievement is evident when the learner, for example,

- explains why a thermal insulator keeps cold objects cold as well as keeping hot objects hot;
- applies the concept of saturation to explain why a crystal growing in solutions begins to shrink if the water is warmed;
- writes a story about survival from the point of view of an animal in the middle of a food chain in a natural habitat, a garden or a farm.

Grade 9



Assessment Standards

We know this when the learner:

9.2.4

- **Applies knowledge: Applies principles and links relevant concepts to generate solutions to somewhat unfamiliar problems.**

Achievement is evident when the learner, for example,

- interprets simple models of ecosystems in order to make predictions of the effects when one factor changes;
- uses molecule models to hypothesise possible products in a simple chemical reaction;
- uses provided data and concepts of life processes to list and describe the problems explorers would have in surviving on Mars.

Grade 7



NS.LO3 (GET)

SCIENCE, SOCIETY AND THE ENVIRONMENT

The learner will be able to demonstrate an understanding of the interrelationships between science and technology, society and the environment.



Assessment Standards

We know this when the learner:

7.3.1

- **Understands science as a human endeavour: Compares differing interpretations of events.**

Achievement is evident when the learner, for example,

- identifies and explains differences in two reports of the same event or investigation;
- describes difficulties in observing certain phenomena (e.g. behaviour of nocturnal animals), and suggests ways of gaining better information.

7.3.2

- **Understands sustainable use of the earth's resources: Analyses information about sustainable and unsustainable use of resources.**

Achievement is evident when the learner, for example,

- analyses data provided about water use in South Africa, comparing the amounts used in various production processes and noting amounts released as effluent;
- presents the analysis as a report to a policy-making body such as Parliament, with recommendations;
- prepares several devices for cooking on, using different types of fuel and finding out the costs and sources of the fuels.

Grade 8



Assessment Standards

We know this when the learner:

8.3.1

- **Understands science as a human endeavour: Identifies ways in which people build confidence in their knowledge systems.**

Achievement is evident when the learner, for example,

- replicates an interesting investigation and findings of a learner at another school;
- reports on difficulties that scientists have had in clarifying ideas and dealing with doubts;
- describes ways in which traditional wisdom is accumulated and passed on.

8.3.2

- **Understands sustainable use of the earth's resources: Identifies information required to make a judgement about resource use.**

Achievement is evident when the learner, for example,

- plans and carries out an audit of all uses of water around the school premises (including gardening, car-washing and drinking), and develops an implementation plan to improve water management in the school;
- conducts a waste-production audit at the school, analysing types of waste, their sources, potential health hazards, and whether or not the waste is biodegradable.

Grade 9



Assessment Standards

We know this when the learner:

9.3.1

- **Understands science as a human endeavour: Recognises differences in explanations offered by the Natural Sciences Learning Area and other systems of explanation.**

Achievement is evident when the learner, for example,

- identifies sources and nature of authority in two differing explanations for an event, coming from two differing world-views;
- compares ways that knowledge is held in an oral tradition and in a written, public tradition;
- traces the way a theory about nature has changed over the centuries.

9.3.2

- **Understands sustainable use of the earth's resources: Responds appropriately to knowledge about the use of resources and environmental impacts.**

Achievement is evident when the learner, for example,

- organises an audit of water use in sections of the community, analyses the data and prepares it for presentation in a local newspaper or radio talk show;
- contributes to formulating a school environment policy, including constructive ways to deal with waste material and to improve water management.